

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/625,484	07/22/2003	Peter T. Tuite	1342/9 9124		
33721 759 TORYS LLP	90 02/12/200	7	EXAM	IINER	
79 WELLINGTO	N ST. WEST	PALABRICA, RICARDO J			
SUITE 3000 TORONTO, ON I	M5K 1N2	ART UNIT	PAPER NUMBER		
CANADA	WISK 1142	3663			
· · · · · · · · · · · · · · · · · · ·					
SHORTENED STATUTORY P	PERIOD OF RESPONSE	MAIL DATE	DELIVÊRY MODE		
2 MONT	2110	02/12/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Applicat	ion No.	Applicant(s)				
Office Action Summary			184	TUITE ET AL.				
			er	Art Unit				
		Rick Pala	abrica	3663				
Period fo	The MAILING DATE of this communicate or Reply	ion appears on th	e cover sheet with the	correspondence ac	idress			
VVHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR CHEVER IS LONGER, FROM THE MAIL nations of time may be available under the provisions of 37 SIX (6) MONTHS from the mailing date of this communic poperiod for reply is specified above, the maximum statutor reto reply within the set or extended period for reply will, I reply received by the Office later than three months after the patent term adjustment. See 37 CFR 1.704(b).	ING DATE OF T CFR 1.136(a). In no eration. Ty period will apply and we by statute, cause the ap	HIS COMMUNICATIO vent, however, may a reply be ti vill expire SIX (6) MONTHS fron plication to become ABANDONE	N. mely filed n the mailing date of this c ED (35 U.S.C. § 133).				
Status								
1)⊠ 2a)⊟	Responsive to communication(s) filed on This action is FINAL. 2b)	n <u>23 <i>January 200</i> ⊠</u> This action is						
3)□	Since this application is in condition for allowance except for formal matters, prosecution as to the ments is							
,	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposit	ion of Claims							
4)⊠	4)⊠ Claim(s) <u>68-77,82-85 and 88-93</u> is/are pending in the application.							
	4a) Of the above claim(s) is/are withdrawn from consideration.							
5)	5) Claim(s) is/are allowed.							
6)⊠	☑ Claim(s) <u>68-77,82-85 and 88-93</u> is/are rejected.							
7)	Claim(s) is/are objected to.							
8)□	Claim(s) are subject to restriction	and/or election	requirement.					
Applicat	on Papers							
9)	The specification is objected to by the Ex	kaminer.						
10)⊠ The drawing(s) filed on <u>05 February 2004</u> is/are: a)□ accepted or b)⊠ objected to by the Examiner.								
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).								
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).								
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority ι	ınder 35 U.S.C. § 119							
	12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:							
	1. Certified copies of the priority documents have been received.							
	2. Certified copies of the priority documents have been received in Application No							
	3. Copies of the certified copies of the priority documents have been received in this National Stage							
application from the International Bureau (PCT Rule 17.2(a)).								
* See the attached detailed Office action for a list of the certified copies not received.								
Attachmen:			_					
Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948)			4) Interview Summary Paper No(s)/Mail D					
3) 🔲 Inforr	nation Disclosure Statement(s) (PTO/SB/08))	5) Notice of Informal F					
Paper No(s)/Mail Date 6) Other:								

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 1/23/07, which amended claims 68-73, 76, 82-85 and 88-93, has been entered.

2. The examiner agrees that the amended claims define over the applied art in the 8/7/06 Office action, i.e., Griffiths et al., Malandra et al., Wedellsborg, and Aoki et al. However, they still do not define other prior art, as discussed below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 74 and 75 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims recite the limitation "the seal" in line 1. There is insufficient antecedent basis for this limitation in each claim.

Art Unit: 3663

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 68-73, 76, 77, and 88 are rejected under 35 U.S.C. 102(b) as being anticipated by any one of Baliga et al. (U.S. 6,546,066) or Hankinson et al. (U.S. 4,828,789) or Desfontaines et al. (U.S. 4,708,843).

Baliga et al.

As to claims 68, 69, 76, and 77, Baliga et al. disclose a multi-component container for a nuclear reactor pressure vessel head with attached control rod drive mechanisms (e.g., see Fig. 1). Applicant's claim language reads on Baliga et al., as follows: a) "bottom component" reads on the reactor vessel itself that is inherently used with the integrated head assembly 100 (see also col. 3, lines 57+); b) "at least one cylindrical component" reads on shroud assembly 200 that is attached to the pressure vessel head 90 and encloses control rod drive mechanisms 96; c) "top component" reads on support plate 180. Any one of these components is capable of absorbing shocks.

As to claims 70-73, Baliga et al. disclose the bottom component (i.e., reactor vessel) having a flange. The top component has a flange portion 153 that is indirectly attached to the flange of the reactor vessel, i.e., through the vessel head flange (see Fig. 2 and col. 4, lines 28+).

Application/Control Number: 10/625,484

Art Unit: 3663

As to claim 88, Baliga et al.'s reactor vessel head is inherently packaged because it is totally enclosed by and contained within the containment building. Where said reactor vessel head is used in a reactor that provides propulsion to a transport means (e.g., a nuclear submarine), said vessel head is also packaged for transport therein.

Hankinson et al.

As to claims 68, 69, 76, and 77, Hankinson et al disclose a multi-component container for a nuclear reactor pressure vessel head with attached control rod drive mechanisms (e.g., see Figs. 1 and 2). Applicant's claim language reads on Hankinson et al, as follows: a) "bottom component" reads on the reactor vessel itself that is inherently used with reactor vessel head shield 10; b) "at least one cylindrical component" reads on arcuate section 14 that is attached to the pressure vessel head 12 and encloses control rod drive mechanisms 96; c) "top component" reads on work platform 70 that is attached to arcuate section 14. Any one of these components is capable of absorbing shocks.

As to claims 70-73 Hankinson et al. disclose the bottom component (i.e., reactor vessel) having a flange (see Fig. 1). The top component has a flange portion 153 that is indirectly attached to the flange of the reactor vessel, i.e., through the vessel head flange (see Fig. 1).

As to claim 88, Hankinson et al.'s reactor vessel head is inherently packaged because it is totally enclosed by and contained (i.e., "packaged") within the containment building. Where said reactor vessel head is used in a reactor that

provides propulsion to a transport means (e.g., a nuclear submarine), said vessel head is also packaged for transport therein.

Desfontaines, et al.

As to claims 68, 69, 76, and 77, Desfontaines et al. disclose a multi-component container for a nuclear reactor pressure vessel head with attached control rod drive mechanisms (e.g., see Fig. 2). Applicant's claim language reads on Desfontaines et al., as follows: a) "bottom component" reads on the reactor vessel 15; b) "at least one cylindrical component" reads on heat insulating jacket 36 and encloses control rod drive mechanisms 20; c) "top component" reads on insulating plate 37. Any one of these components is capable of absorbing shocks.

As to claims 70-73 Desfontaines et al. disclose the bottom component (i.e., reactor vessel) having a flange (see Fig. 1). The top component has a flange portion (i.e., the wider lower vertical portion of jacket 36) that is directly attached to the flange of the reactor vessel, i.e., by welding.

As to claim 88, Desfontaines et al.'s reactor vessel head is inherently packaged because it is totally enclosed by and contained (i.e., "packaged") within the containment building. Where said reactor vessel head is used in a reactor that provides propulsion to a transport means (e.g., a nuclear submarine), said vessel head is also packaged for transport therein.

Art Unit: 3663

- 5. Claims 84 and 85 are rejected under 35 U.S.C. 102(b) as being anticipated by Baliga et al., who disclose upper shroud 260 oriented approximately parallel to and generally surround the CRDMs 96 (see Fig. 1). This shroud reads on applicant's claim language, "secondary shield".
- 6. Claims 82, 83, 89, and 90-93 are rejected under 35 U.S.C. 102(b) as being anticipated by either Baliga et al or Hankinson et al.

As to claims 82, 83, and 91-93 the bottom component of either Baliga et al. or Hankinson et al. attaches to the pressure vessel head by bolts through the stud mounting holes, and the top component attaches to the cylindrical component (see Fig. 1 in either reference).

As to claims 89 and 90, either Baliga et al. or Hankinson et al. show in their Fig. 1 that part of the pressure vessel head is exposed, i.e., not totally enclosed by the cylindrical component.

7. Claims 82, 91 and 92 are rejected under 35 U.S.C. 102(b) as being anticipated by Desfontaines et al., who discloses the bottom component attached to the pressure vessel head, and the top component attached to the cylindrical component (see Fig. 2).

The claims are replete with statements that are either essentially method limitations or statements of intended or desired use. For example, "for a nuclear reactor pressure vessel head with attached control rod drive mechanisms", "configured to

Page 7

Art Unit: 3663

attach to a head-to-body joint flange," "for containment of a portion of the pressure vessel head," etc. These clauses, as well as other statements of intended use, do not serve to patently distinguish the <u>claimed</u> structure over that of the reference, as long as the structure of the cited references is capable of performing the intended use. See MPEP 2111-2115.

See also MPEP 2114 that states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531.

[A]pparatus claims cover what a device is, not what a device does." <u>Hewlett-Packard Co. v. Bausch & Lomb Inc.</u>, 15 USPQ2d 1525,1528.

As set forth in MPEP 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Any one of the cited references is capable of being used in the same manner and for the same intended or desired use as the claimed invention. It is sufficient to show that such capability exists, which is the case for the cited references.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Application/Control Number: 10/625,484

Art Unit: 3663

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 74 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Baliga et al. or Hankinson et al. or Desfontaines et al.

These claims are dependent from claim 71 that does not require a separate seal. As presently set forth, said claim recites that the flanges themselves provide the sealing between the components. At worst, the recited separate seal in the claims is superfluous. At best, this seal is nothing more than a design option that is redundant to the flanges. The form and material for this seal, as recited in the claims, are well-known sealing expedients. Thus, the use of a separate seal, in addition to the flanges in any one of the above references would be an obvious design choice.

Drawings

9. Figures 1 and 2 should be designated by a legend such as --Prior Art— because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 3663

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 571-272-6880. The examiner can normally be reached on 6:00-4:30, Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

R.IP February 8, 2007